Chemistry 1211 L (KHAN, FALL 2018)

Co-requisite CHEM 1211

General Information

Instructor

Farooq A. Khan
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Office: TLC 2-117 (2nd Floor, Department of Chemistry)
email: fkhan@westga.edu

Objectives

To apply the knowledge obtained in CHEM 1211 lecture to problem solving in the laboratory; and
To develop good laboratory techniques; work safely; take data carefully; record relevant observations; communicate effectively, and use time effectively.

Class time

Tuesdays 2:00 – 3:50 pm

Attendance

Attendance is required. If a student misses three or more laboratories, he or she may be awarded a grade of F for the course.

Required

We will be using MeasureNet technology for some of our experiments.

You will need to register at www.measurenet.net to access your data.
Username= UWG email
Password= First Name (first letter capitalized)

You will also need a composition book to record your data and observations.

Office Hours

Mondays 9:45 am – 12:30 pm
Tuesdays 11:00 am – 12:00 noon
Wednesdays 9:45 am – 1:30 pm
Thursdays 11:00 am – 12:00 noon
2:00 pm – 3:30 pm

Additional office hours, by appointment
Learning Outcomes

1. To communicate chemistry with clarity. Attainment of this learning outcome will be reflected by the students’ abilities to:
   - Follow oral and written instructions to successfully complete laboratory assignments.
   - Work with other students in assigned group projects.
   - Write formal laboratory reports as chemists write.

2. Use appropriate scientific tools and instruments to acquire data, process information, and communicate results.

University Policies

Please refer to the following for academic support, the honor code, email policy, credit hour policy and HB 280 (Campus Carry Policy):

https://www.westga.edu/administration/vpaa/common-language-course-syllabi.php

Course Policies and Expectations

Tardiness / Missed Lab: Laboratory attendance is mandatory. **Unexcused absences will result in a grade of zero.** No make-up laboratories will be permitted. At the beginning of each laboratory we will discuss the laboratory. You must be present on time.

Preparation for each laboratory: The laboratories will require preparation and careful work to complete in the allotted time. Read all laboratory material before coming to laboratory. It is important that you understand the theory and procedure of the experiment. The laboratory material will be posted on CourseDen. Please also write a short description of the laboratory and post under Assessments, therein Assignments; therein Pre-labs. A grade of 0 will be awarded for any missed pre-lab assignment.

During the laboratory: You must record all data and observations in your composition book. Use non-erasable ink, and never use white out.

After the laboratory: Clean up your space, clean the glassware and put back in the drawer, and unplug hotplates.

Reports: Laboratory reports are due before the next laboratory period on CourseDen (Assessments, therein Assignments; therein Lab-reports). One report per person is required. Late reports will incur a 10% penalty for each calendar day the report is late.
Grades

Your grade will be calculated based on the following components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
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</thead>
<tbody>
<tr>
<td>Pre-laboratory Assignments</td>
<td>20</td>
</tr>
<tr>
<td>Laboratory reports</td>
<td>140</td>
</tr>
<tr>
<td>Laboratory Final</td>
<td>40</td>
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<tr>
<td>TOTAL</td>
<td>200</td>
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</tbody>
</table>

Letter grades

<table>
<thead>
<tr>
<th>Score</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90% - 100%</td>
<td>A</td>
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<tr>
<td>79% - 89%</td>
<td>B</td>
</tr>
<tr>
<td>65% - 79%</td>
<td>C</td>
</tr>
<tr>
<td>55% - 64%</td>
<td>D</td>
</tr>
<tr>
<td>0% - 54%</td>
<td>F</td>
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Policy on cheating

Occurrences of cheating are rare. However, cheating by one individual raises questions about fairness for the rest of the class, and indeed, endangers the honor code that governs our examination system. It is after considerable thought and agonizing that I have arrived at the following formula. If an individual cheats on a report or an essay for the first time, he/she will obtain a score of zero for that particular report or essay. If an individual is caught cheating a second time during the semester, he/she will receive a grade of F for the entire course.
<table>
<thead>
<tr>
<th>Date</th>
<th>Lab #</th>
<th>Experiment</th>
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</thead>
<tbody>
<tr>
<td>August 21</td>
<td></td>
<td>Syllabus, Laboratory Safety</td>
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<tr>
<td>August 28</td>
<td>1</td>
<td>Basic Measurements</td>
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<tr>
<td>September 4</td>
<td></td>
<td>NO LABORATORY</td>
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<tr>
<td>September 11</td>
<td>2</td>
<td>Emission Analysis/ Density</td>
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<tr>
<td>September 18</td>
<td>4</td>
<td>Lewis Structures and Resonance</td>
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<tr>
<td>September 25</td>
<td>5</td>
<td>Molecular Modeling – VSEPR and polarity</td>
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<tr>
<td>October 2</td>
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<td>NO LABORATORY</td>
</tr>
<tr>
<td>October 9</td>
<td>3</td>
<td>Determination of % by mass by Gravimetric Analysis</td>
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<tr>
<td>October 16</td>
<td>9</td>
<td>Separation of a Mixture</td>
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<tr>
<td>October 23</td>
<td>6</td>
<td>Stoichiometry I</td>
</tr>
<tr>
<td>October 30</td>
<td>7</td>
<td>Stoichiometry II – Limiting reactants</td>
</tr>
<tr>
<td>November 6</td>
<td>8</td>
<td>Aqueous Chemistry (Vinegar Titration)</td>
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<tr>
<td>November 13</td>
<td>10</td>
<td>Behavior of Gases</td>
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<td>November 20</td>
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<td>NO LABORATORY</td>
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<td>November 27</td>
<td>11</td>
<td>Calorimetry</td>
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<tr>
<td>December 4</td>
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<td>Laboratory Final</td>
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